

Vegetation management explained.



Working for you.

Purpose

Left unmanaged, vegetation near the railway can cause serious harm to performance, passengers and our people: trees or branches can blow onto tracks or power lines; overgrown vegetation can obscure signals and block staff from safe waiting places whilst trains pass; it can cause overruns, train braking issues, signals being missed and collisions; and leaves can block drains, drainage systems or culverts causing local flooding or landslips.

We undertake risk assessments that consider both the railway and existing vegetation at each location. Based on the results of these assessments, vegetation next to the railway can undergo inspection, maintenance and management regimes, if required. Following this approach across Network Rail infrastructure will mitigate the risks of vegetation impacting upon railway operations or lineside neighbours.



Before



After

Why do we need a policy for Vegetation Management?

While trees may come down and take out overhead cables, causing hours of delay on a line, these tend to be isolated incidents. Significantly more delay is caused through all low-grade events across the network, combined.

The three categories below are the biggest offenders in terms of vegetation-related delay:

- Track circuit failures – leaf fall
- Wheel slip due to leaf fall
- Low adhesion

A continuing policy of vegetation management across the network has resulted in a significant overall reduction in incidents and passenger delays.



Total combined delays.

2014/15
225.6 hours



Incidents where trees caused disruption to the network.



How we survey

Vegetation

We aim to carry out visual vegetation inspections at least every three years, recording the details for every one-eighth of a mile, each side recorded separately. In general, inspections take place during the summer days and the latest will have taken place between May and October. Information collected and recorded includes:

- Date of inspection
- Name of inspector
- Location (recorded using local names, GPS and railway specific detail)
- Leaf fall data (eg species and size of trees)
- Large or hazardous Network Rail or third party trees



Before



After

How we survey

Vegetation continued

Every year we undertake 'cab-ride' inspections of the railway, where engineers use forward-facing cameras on trains or ride with the driver to inspect the vegetation, noting potential issues such as obstructed refuges or hazardous trees that require more detailed on-the-ground inspection.

We will also carry out additional inspections if we receive reports from our staff or contractors and train drivers. Similarly, notification through the National Helpline and Contact and Communities will generate an inspection as soon as is reasonably practicable – given the risk this could pose to the safe operation of the railway.

Wildlife

In recognition of our environmental obligations we also undertake the following:

- **Desk top survey to identify the potential for species protected by legislation**
- **On site ecological surveys when necessary to confirm presence of protected species**
- **On-site checks before work takes place to ensure the continued protection of wildlife**

What we aim to clear

Vegetation clearance varies site to site, depending on line side characteristics. Greater clearance is required in areas where trains run at higher speeds, in cuttings or embankments or where there is overhead line equipment.

Basic standard

We must keep the areas where trains run, where cables, power and communications equipment are found, and where staff need to work, clear of all vegetation. There are tolerance levels, but as this is a critical area for the safety of our staff, a three-metre area adjacent to the line will be maintained 100% clear of all woody vegetation and 95% clear of all other vegetation. These are vertical limits so there should be no overhanging branches.

When the line runs above 60mph

Where possible, a five-metre area adjacent to the line will be maintained 100% clear of all woody vegetation. The area vertically above this shall also be maintained clear of all vegetation.

Where there is overhead line equipment

Three and a half metres from overhead line equipment will be kept 100% clear of all vegetation.

In cuttings

The area from the rail to the top of the cutting plus one metre should be 100% clear of all woody vegetation.

On embankments

An area of five metres from the rail, or half the distance from the rail to the bottom of the embankment, whichever is the greater, should be 100% clear of all woody vegetation.

Benefits and practicalities

The costs of maintaining the desired structure are significantly less than reactive management. Plus, data now enables the vegetation locations to be prioritised according to risk, enabling the local managers to make decisions based upon the specific requirements at a site.

Communication of vegetation work

A minimum of 10-14 days notification will be provided prior to commencement of all work. Notification will be provided to all properties that will be directly impacted by maintenance activity. However, for some emergency and late notice work this will not always be possible and notification will be provided as soon as reasonably practicable.

Enquiries procedure

Any enquiries should be directed to the Network Rail National Helpline on **03457 11 41 41**.



Before



After